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SPECIAL LIBRARIES

Official Journal of the Special Libraries Association

VOLUME 39

February 1948

NUMBER 2

Indexing Office of Scientific Research and Development War Reports
J. Parker Sondheimer

Visual Indexing
Douglas Tunstall

Subject Analysis — A Rising Star
Jerrold Orne

The Circulation of Current Journals in Special Libraries
Gertrude Bloomer

Applying Microfilm in a War Agency
Frank W. Bobb

Standards and the Special Librarian
Hazel Macdonald

Convention News
Jane Brewer

Published by
SPECIAL LIBRARIES ASSOCIATION

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would stand as empty as the Colosseum
the doors of industrial America
would be padlocked
and the shelves of the libraries
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*Indexed in Industrial Arts Index, Public Affairs Information Service, and
Library Literature*

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INDEXING OFFICE OF SCIENTIFIC RESEARCH AND DEVELOPMENT WAR REPORTS

By J. PARKER SONDSHEIMER

Columbia University, Division of War Research, New York, N. Y.

FEW phases of library science capture the librarian's interest so completely as does indexing. And when indexing is applied to the identification and sorting of current scientific research, the task assumes even greater fascination. During the war years, the Office of Scientific Research and Development was established under the direction of Dr. Vannevar Bush, whose name has been so widely identified with atomic energy. The 23 divisions of the OSRD, each concerned with its own particular field of research, prepared classified reports for distribution to the Army and Navy, describing individual phases of investigation, as well as summary and progress reports. These separate collections were indexed or classified according to various methods. Some were arranged chronologically; some by subject matter and listed alphabetically; and still others by contract number or report number—methods which suited the particular needs of the laboratories or institutions directing the research. There had been no provision for a coordinating common denominator, such as an indexing system which might have interrelated subject matter of one division with that of another. There was a national emergency, and time was spent on research, rather than on indexing systems.

Long before the war was over, the OSRD fully realized that the material contained in the thousands of reports was extremely valuable, not only to present day scientists, but also to men of the future. In fact, as it was aptly pointed out, research is the basis for our defense against any aggressor nation.

As a result, under a contract between Columbia University and OSRD, the Summary Reports Group was commissioned to supervise the preparation of 46 volumes, summarizing the technical work of NDRC (National Defense and Research Committee). These volumes were of a highly classified nature, and were intended, primarily, for Army and Navy distribution. It was understood that only those portions which had been declassified officially, were to be made available through the Office of the Publication Board (now the Office of Technical Services, Department of Commerce) to the public.

The volumes were not only to summarize the research, but were to include extensive bibliographies at the end of each book. From these bibliographies, all OSRD references were to be microfilmed. Although it was recognized that some form of indexing was required in order to locate reports on the film, and also to correlate a microfilmed reference with one found in the volume's text, there was little possibility of falling back and relying on fixed rules in establishing indexing procedures. The problems involved were as new as the scientific material itself and each volume offered individual complications. The laboratory approach of trial and error was adopted and the final plan gradually crystallized over a period of months, after much discussion and after many schemes had been formulated, tried and discarded.

Early in this evolution, a deciding factor was the realization that although the index was being developed primarily as an aid to the reader in locating

bibliographical entries on the microfilm, perhaps the most important objective of the indexing system was the segregation of scientific data on the films in such a way that all related material would be grouped together. If the reports were being preserved for the use of future scientists, there would necessarily be more to the index than a mere mechanical scheme for identification. This meant that the microfilm index would not parallel the heterogeneous bibliographical listings as found at the end of each volume test, but would be an independent rearrangement of all the 46 bibliographies, based upon scientific categories and relationships.

Such a departure from the conventional plan of microfilm indexing presented problems, for the very emphasis placed upon the requirements of the future researchers demanded a system which would not only anticipate the needs of such men, but also one which would combine good librarianship with a functional approach. For, should the index prove to be acceptable to professional librarians' standards alone, it might very well lead the uninitiated scientist, using the classification system by himself, into a time-wasting maze—and fail. It became obvious from the start, that although some compromises would have to be made by the librarian laying out the system, the scientist's approach to classification and his particular method of locating material would have to be the deciding factors.

A hurried decision to try an experimental run with Division 12 (Transportation Problems) alone precipitated the Indexing Department into sudden action for it was decided that the run should be as like the final form as possible. It was fortunate that many suggestions for the basic indexing scheme had already been discussed pro and con for months in advance, since decisions had to be made on the spot.

The Indexing Department employed eight additional personnel, mainly typ-

ists and copy readers, all of whom had had no training in handling scientific material. It was, therefore, necessary to institute a training course, even though cursory in nature, in order to provide some background for the new individuals associated with the Department. As the work developed, it was discovered that several who had had no scientific background whatsoever, were particularly well fitted for the type of work required of them. There was a fine spirit of cooperation and competition in hunting down typographical errors that made for perfection in the finished manuscript pages.

It was finally agreed that the 20 or so chapter headings of Division 12's one volume might well serve as subject headings and natural index divisions. Reports were segregated accordingly and the system thus outlined was placed before several scientists who generously served as guinea pigs. After a briefing they were asked to locate certain references, which they did with practically no assistance. After this and several other attempts, they all came to the conclusion that the indexing system was both simple and exact.

More specifically, the Division 12 indexing system began at 100, which was the numerical designation of the first chapter, and extended through 2200, which was the last chapter. There were few subdivisions, since each chapter concerned a special topic. Typed 3 x 5 unlined cards, which were to precede and identify each report on the microfilm, were prepared containing the full title, report number, author, contract number, manufacturer and date. The cards were much like the following sample:

The QMJ-2, an amphibian ½-ton truck. (Report No. 2.) John C. Patrick. OEMsr-1149. Maieson Shoe Manufacturers. January 14, 1944.

An important problem concerning the preparation of the cards was spacing. Since a card was to precede each micro-

filmed reference, clarity of typing and good visual layout were of prime importance. It was finally decided that according to visual tests, one space between the title and the bracketted report number was a clear enough separation, yet not so far apart that the relationship of the two items would be lost. Three spaces were to appear between the report number and the author, as well as between all other items, to insure quick and easy identification of information by the reader of the microfilm. Below the main entry appeared the index number in bulletin type size.

The policy of forming the actual index number for each reference aroused much discussion. One fact was immediately recognizable, namely, that the division's numerical designation would precede each index number in order to identify it in a welter of over 20,000 reports. This was necessary, since a certain number, as for example 110, could appear several times in various indices. The next decision concerned the position of each bibliographical reference within a category, and it was agreed that the arrangement would be chronological commencing with the earliest publication. Open month dates were to precede full, and undated material was to appear at the end of the list. Each reference, then, received a sequential M number, where M represented the word: Microfilm. Thus, at the bottom center of a microfilm card for Division 12, appeared such a number:

Div. 12-110-M 5

The "Div. 12" quickly identified the division, the "110" placed the reference within a certain scientific category, as shown on the microfilm index, and the "M 5" indicated that the reference was the fifth on the chronologically arranged list. This triple numerical system therefore not only accurately located the reference on the microfilm for the researcher, but when included in the volume beside the same bibliographical

reference, it forged for the reader a helpful link between text and film.

With all these matters out of the way, the clerical work proceeded for Division 12. Cards were typed and bibliographical listings were compiled. Reports were numbered and arranged according to the index and the results were gratifying, in spite of the fact that minor problems did make themselves known. For example, some of the original report material was so blurred or indistinct, that a good microfilm reproduction was out of the question; some of the cards were too lightly typed, and so on. Still, the indexing system *per se* had proved to be a success. Perhaps it was unjustified, but the pride and satisfaction experienced after the experiment was not unlike that of those men who worked so long in radar or high explosives and had finally watched their research successfully perform on the proving grounds. Here, then, was a system which satisfied both the needs of research and the standards of good librarianship, and also served as the guide for indexing material found in all other divisions.

However, the laurels quickly turned to goldenrod with the realization that other volumes were not as mechanical in their topical outline. Too many chapters over-lapped, and there was no equality in chapter weight. Then too, while Division 12 published only one volume, subsequent divisions often prepared two or three volumes, and some even four. And there still was Division 6 with its 24 volumes!

With wry good humor, the Indexing Department realized that the simple chapter plan of indexing would have to be abandoned, and a more complex one substituted. As part of the revised plan it was discovered that even though a division published as many as two or three volumes, all the material could be included in one index for that division, providing the subject headings were limited to a total of nine subdivisions,

much like the Dewey decimal system, and if there were no more than nine main subject headings for the entire index. Although this plan offered no correlation between actual chapters and indexing groupings, as found in the index for Division 12, it provided for possible deletion of discursive chapters where no reports were submitted for microfilming, and also permitted the combination of two or three related chapters under one main subject heading.

Indexing principles were formulated by the fall of 1945, at which time several divisions began sending in reports designated by their directors as material for microfilming. One of the first, Division 8, dealt with high explosives, including the now familiar RDX compound which figured in the recent Canadian-British espionage trials of scientific personnel. Confronted by a myriad of complex chemical formulae, the indexer was slightly jolted. These new compounds naturally were confusing to one whose basic chemistry consisted of no more than general college courses. With the assistance of a staff Ph.D. in chemistry, the index was clarified and the finished form gradually emerged. Next came Division 10, concerning Chemical Warfare, followed by reports submitted by the Applied Mathematics Panel. Complexities piled on top of complexities, until the Department never knew what subject would next pop out of the mail chute. Indexing psychological reports in the morning and editing radar in the afternoon never resulted in monotony, but it likewise never made for peace of mind!

In spite of the fact that there was a definite effort made to arrange the bibliographical listings in a uniform manner, individual characteristics prevented this goal from being attained. For instance, the indication of report numbers depended upon the caprices of the division. One employed a sequential system which disregarded the number actually printed on the cover page; another di-

vision omitted all report numbers. Then there was the question of the laboratory from which a report emanated—the general rule being that, with the exception of Division 6, all laboratories were to be noted in full, as: Cornell University, Bell Telephone Laboratories, Inc., etc. However, with Division 14, it was decided mainly for visual reasons, that: MIT, Radiation Laboratory, would be preferable to: Massachusetts Institute of Technology, Radiation Laboratory. Division 6 was at variance with all other divisions, with its decision to abbreviate whenever possible, so that Columbia University Division of War Research automatically became CUDWR.

As for the actual reports, often the cover page title was an abbreviated version of the complete title as found on the title page itself, and at times these two titles had practically nothing in common except the mention of the device or principle discussed in the text. Frequently, a bracketed title would have to be inserted to replace a missing or general title, such as: *Summary report of the Supervisory Group from January to March 1944*, or, to replace some scientist's variety of humor, such as: *Which twirls faster, a neutron or a colonel?* Authors were often omitted, and when they did appear, first initials were employed in most instances. It meant endless correlation and search in order to fill out and supply such missing items. Dates offered further difficulties, for approximately one-fifth of all the reports were found to be without such information.

In their completed form, some indices were composed of six digit subdivisions while others, with less material, were less detailed. The governing factor in each instance was the actual report material submitted. Division 6 with its 24 volumes governed by a single index naturally required six digit index numbers, as did Division 14 with its 1,775 reports. However, subject headings or subdivi-

sions were never introduced unless the subject warranted their inclusion, or there was a justification to further break down a heading because of the extra large number of reports within one grouping. It was discovered that any heading which contained too many reports was not as valuable to the searcher as one with subdivisions.

The microfilm index volume which now is in preparation will contain a brief explanation of the procedures followed in establishing the various indices and their objectives. The index will precede the bibliographical listings for each division. A general cross reference list will also be included in order to indicate the location of related material which may appear in more than one index. As an example of this, wave propagation which forms the main topic of

investigation for one special division, is also a subject for study and discussion in reports of the Applied Mathematics Panel, Division 14, Division 3 and Division 8. If there were no cross reference, the searcher acquainted with the work of one division could hardly be expected to know that his topic had also been reported on by certain other divisions.

In spite of the endless difficulties, the problem of indexing the 20,000 OSRD reports has been a challenge—an interesting one, and the unravelling of the complications and their solution according to good library practice was as much of a satisfaction as that gained from the realization that the segregation of the scientific material would be helpful to future scientists in their research toward a free America.

VISUAL INDEXING

By DOUGLAS TUNSTELL

National Film Board, Ottawa, Canada

THE visual index is an alphabetical file of concrete natural objects, or of visible activity related to natural objects. It is based on an equal understanding of indexing methods and the functions of the picture image. It attempts to correlate these two heretofore foreign channels of expression into a straightforward file of the cardinal visual features suggested by any group of pictures. It is essentially sensuous. The indexer is no more than a sensitive and imaginative camera who arranges facts alphabetically.

This article will concentrate on some of the more basic problems arising from the visual indexing of black and white stills and motion pictures.

There is danger in confusing the visual and subject concepts. A typical visual entry could be "Threshing", whereas the corresponding subject en-

try would be under "Agriculture". The most important single thing to remember in all visual indexing is to avoid any trace of classification. Bibliographic subject headings in a visual index defeat immediately the basic purpose as the subject entry in some cases will have little in common with the visual entry. Both subject and visual concepts may be needed in a picture library, however, depending on how it is used. Experienced workers in audio-visual education will tend to think visually, while the layman will rely on subject terminology. Libraries requiring both should take particular precaution against confusing the two methods, and, above all, no attempt to classify is necessary. This approach can be applied with some modifications to still photographs, picture reproductions, motion pictures (both 35mm. and 16mm.), film strips,

microfilm, posters, cartoons, displays, drawings and paintings. All these varied media, together with television, are but branches of the art and science of optical communication. Those libraries handling visual material in both negative and positive form will benefit most from this approach. In these libraries the relation between the negative and positive is just as important as between the library records and the positive viewing print. Therefore elaborate classification schemes are only cumbersome.

In discussing the communication of ideas by visuals, it must be remembered that the human eye can focus on only one activity or spot at a given time. With the exception of personality shots, most pictures convey a direct and clear sensuous impression. A very few pictures will be exceedingly difficult, if not impossible, to index visually. If the picture conveys no tangible visual concept serviceable in some capacity to the users of the library, references to it may be omitted from the visual index. Use may be a determining factor in such cases, particularly with more out-of-date shots of mainly historical value. In such instances it will be possible to make headings with big inclusive references, e.g., "Blood donor clinics". However, the vast majority of pictures convey their message sharply. Therefore, the major problem in visual indexing is not one of discovering what is going on, but rather to reduce to its basic elements the activity once it has been understood. The normal shot then consists of a single obvious action:

"Girl eating apple in kitchen"

Before deciding whether this should be indexed under:

"Girls", "Eating", "Apples", "Kitchens" the visual expression must be understood. Any index which distorts visual expression for the sake of "logic" or consistency is not in any way a visual index. It must be admitted then at the offset that a discussion of visual indexing away from pictures is much more diffi-

cult than indexing the actual pictures. It is for this reason that the indexing of dope sheets or other written information should be discouraged as much as possible. The conversion from the picture image into the index file is as wide a gap as should be allowed in any picture library. Provided that the cross references are extensive, each picture can suggest its own index entry clearly. It will depend largely on the camera angles, the proximity of the camera to the subject, and the nature of the material itself.

If, for example, on examination of the shot in question, a girl is about 5 feet away from the camera, and the background (an electric stove) about 8 feet away from the camera, we may assume that the dominant activity is that of "a girl eating an apple". As a shot of an apple it is useless, and as a shot of a girl it is not important, so it could be indexed as "Eating apples". As in bibliographic subject heading work the plural is used in all cases regardless of the number at hand. The tri-qualified entry of "Eating apples girls" should be avoided wherever possible, but if there are a large number of shots of any single activity it will be unavoidable. While the average activity may be expressed by the subject-predicate-object sentence structure, no hard and fast rule should be made in relating this to indexing. A shot of a man cleaning a fish is best expressed in the index as "Fish cleaning", whereas a shot of a man eating a fish is best expressed as "Eating fish". Decisions will have to be made with regard to headings like "Boys", "Girls", "Women", etc., whether the action or the subject is the more important. With certain words such as "Bell hops", "Cyclists", the action can be implied. In other cases such as "Ironing" the subject may be implied.

In relying on the communicability of each picture image, and the ability to relate this sensuous impression to an index file, the degree to which each in-

dex entry is specific will vary according to the visuals at hand. For example, it might be quite impossible to tell from a picture of a girl eating a meal at a table just what she is eating. In such cases, the fact should be accepted that it is impossible to index what she is eating and the entry may be: "Eating girls". The "Eating" file may read something like this:

"Eating apples"
 "Eating cucumbers"
 "Eating girls"
 "Eating potatoes"
 "Eating steaks"
 "Eating women"

The entries under "Eating girls" and "Eating women" will be shots where the camera emphasis was such that it was impossible to tell what they were eating.

A shot of a dog eating a bone should be filed "Dogs eating". Similar entries should be made for horses, cattle, pigs, etc. A serious problem does arise in connection with national groups such as Chinese, Japanese, Indian, etc. A Chinese girl eating an apple would normally be indexed "Chinese girls eating" with the "apples" on the end if there is a number of entries of the same type. The order in such special cases as these will depend primarily on local use.

There is a strong temptation to index all two-worded entries both ways: "Eating girls" and "Girls eating". This should be avoided at all costs. Especially with the three-worded entry this is bound to lead to chaos. The only exceptions will be "Aerial" meaning shot from an aeroplane, "Night" meaning taken at night, and "Microscopic" for all material taken with a micro-camera. In such cases, "Aerials forests" and "Forests aerials", "Night cities" and "Cities night", and "Microscopic insects" and "Insects microscopic" will be quite permissible.

Abbreviations may be used for camera angles. Close-ups may be indicated by CU, high shots HS, and long shots LS. In such cases, these should file immediately after the main entry regardless

of the alphabet, so that the file would read:

"Boys"
 "Boys CU"
 "Boys HS looking into camera"
 "Boys barefoot"
 "Boys baseball"
 "Boys clubs"
 "Boys fishing" etc.

Such descriptions as CU, HS, LS, will only be used where the activity is non-descript, and the convenience of having them immediately after the "Boys" heading is that they are merely shots of "Boys" either looking into the camera or doing any such intangible activity.

Inflections of words may be employed to good advantage. A good example of this is: "Welding", "Welder", and "Weld". Each of these conveys a quite different and distinct visual concept. Where there is a welder welding, the present participle is usually preferred to the noun.

If each picture is treated as a separate entry and indexed as a concrete image, difficulties will arise common to all indexes, i.e., the actual meaning of words and, in particular, the shades of meaning between one word and another. Words which are *not* synonymous must not be treated as though they were synonymous for the sake of convenience. The common snares will be words like: "Hydro", "Power", "Electricity", etc. But peculiar to visual indexers will be the confusion among the following:

"Harbours", "Coves", "Gulfs", "Inlets",
 "Bays", "Channels", "Straits", "Canals",
 "Rivers", "Streams", "Brooks", "Creeks",
 "Ponds", "Pools", "Swamps", "Lakes",
 "Shorelines", "Coastlines", "Breakers",
 "Beaches", "Waves", "Tides", "Seas",
 "Oceans", etc.

These must be defined as they are met with adequate cross references. Rules concerning cross references will follow those laid down by conventional indexers.

Most visual indexers make a choice between the use of punctuation and prepositions. A combination of both would be cumbersome, and, unless there

are local objections, prepositions usually do the job more thoroughly and more clearly. Moreover, the meaning of a period, comma or colon is often difficult to remember. Prepositions should, however, be ignored in filing:

"Cows"
 "Cows CU"
 "Cows LS"
 "Cows in barns"
 "Cows clipping"
 "Cows crossing bridges"
 "Cows drinking"
 "Cows in farmyards"
 "Cows feeding"
 "Cows grazing"
 "Cows Hereford"
 "Cows Holsteins"
 "Cows milking", etc.

The prepositions "for" "through" and "up" are particularly useful and descriptive, for example: pleasure fishing may be separated from commercial fishing by the entry "Fishing for sport". Eskimoes fishing in the north may be caught by the following entry "Fishing through ice"; logs being sent up the jack ladder by "Logs up jack ladders".

In motion pictures, the words "pan", "tilt" or "dolly" may be used as prepo-

sitions, and may be qualified by directions such as "pan left" "tilt up" "dolly forwards". This will give entries like "Grain elevators pan left boxcars", "Street scenes tilt up skyscrapers", "Factories dolly forwards turret lathe". If there is demand, similar treatment may also be given to "wipe", "dissolve", "fade-outs", "fade ins" and other optical effects.

Some confusion arises between the use of proper nouns in contrast to common nouns. The indexing will be more reliable and foolproof if the proper nouns are treated apart. A shot of a well-known department store will be equally useful under "John Morgan and Company", and "Department Stores". There is good argument for keeping a separate file of proper nouns from common nouns. This would mean that names of countries, cities, people, companies, etc., would be kept together and separated from common natural objects. The suggestion here is related to that of the "divided" catalog but is even more valid in that proper nouns may or may not be visual in connotation.

SUBJECT ANALYSIS—A RISING STAR¹

By JERROLD ORNE

Director of Libraries, Washington University, St. Louis, Missouri

MY venture into this highly contentious field of library techniques is the natural result of a series of misadventures which enveloped me in the course of preparing a technical subject heading list for publication. For the past two years a persistent source of irritation to me has been the unbelievable number of people, both technicians and librarians, who seem to be unable to draw a clear distinction between cataloging, classification and subject analysis, and who accordingly are

lost before they start to apply any or all of these techniques. A glance at the organization of the Processing Department in the Library of Congress gives a clear line of demarcation. The descriptive cataloging division is responsible "for preparing copy for the printer of the book descriptions which constitute the content of the Library of Congress printed cards, exclusive of subject headings and classification numbers."² So far, so good. Now the description of the subject cataloging division rears its twin

¹ Paper presented before meeting of Science Technology Group, S.L.A. Annual Convention held in Chicago, Illinois, June 11, 1947.

² *Annual Report of the Librarian of Congress* . . . 1945. p. 119.

heads: "This new division has . . . full responsibility for the analysis and record of the subject content of the Library's collections as it is recorded in the public catalog."³ This "analysis and record" includes subject heading and classification. Both of these operations are in this division. It is precisely this construction which looks so logical that leads us into confusion. It has been frequently stated by well qualified technicians in the processing field that there is no direct relation between the classification heading and the subject heading. The fact that such statements have been made is a witness that confusion exists. The Library of Congress Division, cited as an example, attempts to clear the air by having an editor of subject headings and an editor of classification within the Division. It has recognized that the two are in some ways incompatible. But many others have not.

For my final tour of duty in the Navy I was ordered to Washington, D. C., to perform a special task for the Office of Research and Invention. Upon my arrival I found that what was wanted was an analytical subject index of all naval research completed and in process in the numerous naval research centers. At the same time I was handed a partially developed new classification code for all sciences which out-Deweyed all editions of Dewey and yet covered very few of the many fields envisaged in the outline scheme. Actually, there was absolutely nothing to classify. Classification has been defined as "The art of assigning books to their proper places in a system of classification in which the various subjects of human inquiry, or the descriptions of human life in its various aspects, are grouped according to their likeness or relation to one another."⁴ The material to be in-

dexed was such as is the backbone of all special library collections, reports in series, and the series arrangement was the only practical one. To make a long story short, the Admiral was told what he really wanted. My small section, appropriately called the "Indexing Section" proceeded to establish the subject heading list as the key to the entire indexing operation. The Library of Congress has now assumed the indexing operation under a contract with the Navy. This undertaking is cited only as an example of the confusion that reigns in the minds of the general public and which extends into our own ranks. It can serve also as an example of the need for a kind of analytical guide which goes beyond classification, beyond cataloging, and beyond subject headings as we now know it.

It is evident everywhere that we have moved into a new pace—that matters which have always had some importance now are matters of extreme urgency. Speed is the theme of our life today. We are reaching for supersonics, and it begins to look as if we are now in a race to see who can develop the biggest atomic bomb first. No one is more aware of this change in rate than special librarians, who are so vitally involved in the researches of many fields. No one has been more beset with problems of making minute bits of information more readily available; and no one has been more productive of ingenious solutions.

Librarians of all times have felt the inadequacies of the well-known techniques, and for decades a lively dispute has gone on over the relative merits of the classed catalog or the dictionary catalog, of subject cataloging or bibliographies. This dispute has become academic, for the mass of new materials and the imperative need for speedy handling make standard methods impractical. Even the specialist has difficulty in keeping up with his limited field, and cannot do it without a special

³ Ibid.

⁴ William Stetson Merrill—*Code for Classifiers*. 2d ed. A.L.A., 1931, p. 1.

means of reporting. This means has its roots in standard library techniques, but its branches tower far over the earth to reach freedom and light. I speak of subject analysis.

One could cite a paper of five years ago, of ten years ago or of twenty years ago in which one will find a statement to the effect that in the future increasing reliance must be placed on subject headings. As a matter of fact there has never been any doubt of the truth of this claim; there have only been differences in the degree of insistence upon it. My aim is to obtain an honest recognition of the great importance of subject analysis and, if possible, to free it of some of the conventional burdens laid on it by "standard practice." We are now at a point where every major library is overwhelmed by a flood of materials other than books, for which standard practices are too cumbersome. These reports, pamphlets, leaflets, bulletins, proceedings, transactions, etc., are loaded with the latest and best materials available in currently active fields, but standard library practices do not lead us to them. Even were this not so, standard library practices are so laborious that by the time they can be applied, the material is obsolete. We have no alternative but to revise old practices to make thorough-going analysis possible.

SUBJECT HEADINGS

Now subject heading work has been going on for years and has served certain needs very well. As everyone knows, it is a laborious task, involving both a considerable knowledge of the field of the materials and an understanding of a few basic rules for establishing form of entry. What happens then when specialized materials in many fields come to that same person? No one can know everything. And what happens when fields begin to cross and intertwine as they always do? Who is to say what goes where? What happens when these inter-relations develop into

a new field and new branches grow from it? These are only some of the problems that bedevil the poor librarian to the point of admitting that standard practices are not equal to this task.

Let us be frank about our professional terminology and honest with ourselves. The business of subject analysis whether you call it subject heading, subject cataloging or subject indexing, is simply *indexing*. Our method of analysis of content differs from others chiefly in that it is usually done on cards which are organized in catalogs. It is, in effect, indexing on cards. Now if we can accept indexing as the proper term, a large step will have been taken towards ending the confusion that exists between content description and the assignment of a classification symbol, between a descriptive device and a location device. We are here concerned solely with what is inside the covers, not where will the covers and their contents be placed.

The tool most desired by the librarian is a universal subject heading list which would combine all the good qualities and general coverage of the Library of Congress list together with detailed coverage and correlation in all subject fields. There is perpetual hoping and reaching for something which cannot be. By the very nature of learning and progress there never will be a static point in our developing universe where any such list can be established. Everyone admits that change there must be, but even the newest book on subject headings⁵ hammers time after time on the need for rules and the desire for authoritative and standard practice. With the best will in the world, librarians have been laboring towards this end only to find failure at the end, because whatever their starting point may have been, it has changed greatly by the time they reach a solution.

There are a number of premises basic

⁵ Julia Pettee — *Subject headings*. N. Y., Wilson, 1946, pp. 150 ff.

to subject heading or indexing work which are fallacious, and until we can shake them, our progress will be limited. The manuals all state that new headings should be made very carefully, only after the test of time has proved them. What happens in the interim? The time when a subject is timely is when it is useful, and that is the time when a reference to it must appear in your index. Suppose it does prove short-lived or combines with something else three years from now. Card entries can be changed very easily and in many cases the cards can be left in the catalog by making a reference to them under the new entry. Moreover, this process may provide a handy chronological characteristic.

This leads me to my second objection which is the insistence on coordination of every entry with every other related one. Undoubtedly this is handy for the cataloger, but does the reader or researcher really need it? We must assume that most members of the public have a reasonable amount of intelligence, and that most of them will know a specific name for what they are seeking. It is infinitely more useful to have many more cards in a file leading to many specific items than to have many cards in many places leading to a few bits of information. We worry too much about possible change! We know there will be change. Accept it as the fee extracted for good service and let's pour out the stuff without this time-consuming predilection for *cross-references*, *see froms*, *see alsos*, and even finally *see me*. If we do not accept this, you may as well forget the mass of ephemeral but all important materials we now do not have time to catalog properly. We'll never get to it. This obsession of the cataloger with providing the poor ignorant public with *see also's* to everything related is an elaborate conceit. Why must we be all things to all men? One very estimable librarian says "An alphabetical subject catalog . . . must take

into account these inter-relationships, and to determine them as a logical analysis of the topical groups is necessary. These relationships are expressed by "see also" references from the more comprehensive to the particular specific topic and for the coordinate relationships of one topic to its allied topics."⁶ Is this indexing or classification? We cannot possibly make all the connections, just as we cannot know everything, and we should do one thing at a time. We should and will index as much material as possible, using recognizable terms, terms which can usually be found in the material itself, and leave the connections for posterity.

EPHEMERAL MATERIAL

In dealing with ephemeral materials we might adopt a practice just the opposite of current rules for subject headings for books. It is a normal routine for new research results to appear first in ephemeral forms, and it should be our normal routine to index them under as specific an entry as possible. The entry used can follow the terminology of the new material even though it comes close to being synonymous with two or three other entries. Thus *Athodyds* as a beginning entry is acceptable, and might serve for a year or more before the mass of materials on various types of jet engines is large enough to set up a pattern which would bring it under *Jet engines*. If later it has to be moved, one reference card will fill the gap. In many cases, by the time the final entry can be determined, the material found first in ephemeral publications is obsolete

⁶ Pettee: Op. cit. p. 59. See also Ibid, p. 57: "It is the nature of subject material that no topic is an entity in itself. The author catalog consists of independent entities; persons and corporate bodies function and act as individuals, personal or corporate. A subject heading has no such individuality. It is intimately related to and forms an integral part of a larger whole. The principle of classification is inherent in the nature of subject material. The orderly mind instinctively arranges both immaterial concepts and objects in classed groups."

and can be discarded together with the index cards.

Ephemeral materials are meant to serve quickly and die. As books appear which contain the same information, it is useless to spend time or space on superseded materials. But the time spent in indexing these materials is not lost, since from the success of early entries we can better determine the more permanent forms to use. Continuing the example cited, we might have tried *Athodyds*, *Jet engines*, *Ram jets*, and *Aerial thermodynamic ducts*, and found them all useful until time proved that all of these entries could be best combined under *Jet engines*, *Ram jet*.

I wish to suggest further along this line that the subject entry authority list should serve also as a periodic inventory list and that a constant weeding stem from just such inventories. Miss Pettee says, "The repetition of entries under overlapping terms is allowable and useful in an index but congests a permanent catalog."⁷ If consistent study of the entries were provided by the inventory method, the congestion could easily be avoided and probably many so-called "permanent subject headings" would be replaced as well.

This consistent study is the only answer for those who long for a "definite

code." Just as there can be no universal subject heading list, there can be no permanent code. One pre-war article on subject headings states the case briefly and pointedly, "A definite code is definitely the one thing we do not want at this time. Subject headings, unlike author entries, are not subject to codification. Too much depends on the size and interests of the particular library, the knowledge of the cataloger and half a dozen other variables."⁸ A comparison of these two quotations demands attention. Logic leads you inevitably to the conclusion that there can be no permanent catalog; therefore, let us recognize the greater usefulness of index entries strictly up to date and apropos, and approach this problem more directly and without equivocation. It is an obvious matter of logic that change is constant. It is also generally agreed that anyone can do one thing better than he can do two things at one time. If we classify, let's classify. If we analyze the content, let's stay with it. With all due respect to punch card methods and even mastermind machines, subject analysis is at the root of all such techniques, and it must be freed of all restraints if it is to survive.

⁸ Henry Black. "The problem of subject headings." In *Catalogers' and Classifiers' Yearbook* no. 6. Chicago, A.L.A., 1937. p. 86.

⁷ Pettee. Op. cit. p. 44.

THE CIRCULATION OF CURRENT JOURNALS IN SPECIAL LIBRARIES

By GERTRUDE BLOOMER

Librarian, The Wm. S. Merrell Company, Cincinnati, Ohio

OF all the routine practices carried out in the administration of special libraries, probably none is more controversial, more varied in method, and at the same time more important in its aim and purpose than that of the circulation of current jour-

nals. To circulate or not to circulate is not the question in most special libraries, since most of them maintain some system of circulation. However, questions relating to the extent of circulation privileges and the actual technic involved in circulation procedure raise

issues which never fail to elicit the interest of the librarian. At the same time, although the routing of current journals is a problem of major importance in most libraries, there has been relatively little on the subject in the literature.

At The Wm. S. Merrell Company, the practice for years had been one of "indiscriminate circulation" of current journals. Any journal received by the Library was considered to be available for circulation, and there was only an arbitrary designation as to who might or might not borrow these journals. During the war, our business, the manufacture of drugs and pharmaceuticals, expanded to a great extent. As new personnel were added in every department and new lines of interest were opened up, unprecedented demands were made on current journal circulation.

By summer 1946, it was felt by Library personnel that some retrenchment and re-evaluation of the system were necessary. We were spending an increasing amount of time in the mechanics of preparing journals for circulation, while at the same time it was becoming increasingly difficult to locate a journal once it had gone into circulation. Moreover, with the increase in the number of persons receiving journals, we were losing more separate issues; in the case of foreign journals, especially those published during the war, this loss was very serious. We had on our hands a situation similar to that described by Cole and Rawley¹ during the period of "wholesale routing" at the E. I. du Pont de Nemours library. The increasing amount of time spent on circulation, the difficulty of locating a journal and loss of separate issues were factors making for annoyance and delay to both Library personnel and research men. We felt that circulation was defeating itself, and we were prepared to impose drastic restrictions on circulation privi-

leges, if not to abandon the entire scheme.

Before inaugurating what would have amounted to a revolutionary action, however, it was decided to discover how other pharmaceutical libraries were handling this problem. We prepared a brief questionnaire which we thought covered the most important points in connection with circulation, and sent a copy to each of 24 pharmaceutical libraries. The response from the questionnaires was prompt, and a high degree of interest in the question of current journal circulation was manifested by many of the librarians who filled them out. Because it was evident from the comments on the questionnaires that circulation is an unsatisfactorily handled problem in most special libraries, we decided to publish our findings for whatever benefit they might be to all librarians.

For purposes of analysis of the data revealed in the questionnaires, we arbitrarily placed each library in one of three categories according to size. Libraries having 10,000 volumes or more were classified as "large"; those having 3,000 to 10,000 volumes were regarded as "medium-sized", while a "small" library was classified as one having less than 3,000 volumes. Such divisions were made solely for purposes of analysis and were intended to give an even distribution in each classification.

It is almost standard procedure in special libraries to attach onto journals to be circulated a routing slip bearing the names of persons who are to receive the journals, and the order in which they are to receive them. Ordinarily, a routine circulation list is made up for each journal. In most libraries the librarian scans each new journal for material of particular interest to his or her organization, and indicates individuals to whose attention the material should be brought. Usually these personnel are the first to receive the journal when it is circulated.

¹ Cole, B. R. and Rawley, Helen. "Current journal routing." *SPECIAL LIBRARIES* 35:324-27, 1944.

Of the total of 24 pharmaceutical libraries (including our own) which took part in our survey, only one library does not circulate any current journals. The librarian reports that previously general circulation was maintained, but that with rapid expansion of the company interests, the circulation scheme became inefficient and that it was finally abandoned at the request of the men in the research department. Specific issues are loaned upon request, and personnel are kept informed of new material by means of photostats of the tables of contents of new journals. These photostats are made at the time the journal is received into the library, and they are circulated to the various individuals who are interested.

Although almost all libraries circulate journals, 66 per cent of them set up some restrictions on circulation. In 50 per cent of the libraries, circulation privileges are extended only to certain persons within the organization. Usually members of the research staff are included among those who receive journals regularly. However, in no case is this service given only to the research staff. Heads of departments in the office and production divisions are usually included on the circulation lists.

Restriction as to type of journal is found in 66 per cent of the libraries. This restriction varies greatly. In some libraries only scientific journals are circulated, while others will loan only non-scientific journals. If any restrictions at all are made, the latter category is found most frequently. Many libraries will not circulate any review or abstract journals, while in other libraries circulation is restricted almost entirely to these types. In the majority of libraries, business, trade and technological periodicals are circulated generously. One librarian simply sends business periodicals as they are received to the departments which have interest in the periodicals, thus eliminating from the library any responsibility for them, excepting for

the subscription record. Many librarians attempt to confine circulation privileges to the subject interests of the individuals who receive journals. In only one-third of the libraries is there no limitation on either the type of journal or on the personnel. This "indiscrimination" is found most frequently among the small libraries.

More than half of the libraries receive duplicate copies of those current journals which are most in demand on the circulation lists. In most cases one of the duplicates is circulated while the other remains in the library, although several libraries circulate both, or all, copies of an issue. As might be expected, the practice of circulating duplicates is found most frequently in the large libraries, some of which receive as many as 24 titles in duplicate.

In the majority of libraries (65 per cent) the actual mechanics of circulation is delegated to one member of the staff. This duty includes typing or writing routing slips, checking journals into the library when circulation is finished, and locating specific issues that may be requested while in circulation. The delivery and collection of journals may also be handled by this person. In very few libraries does this routine occupy more than 25 per cent of an assistant's time. However, three small libraries and two large libraries report that an assistant spends full time at circulation.

By far most libraries entrust circulating journals to the regular plant mail. Six of the 24 libraries reporting furnish messengers to handle circulation; and this special service is to be found in libraries of all sizes.

It was to be expected that the large libraries would circulate the most titles of current journals. Although this actually is true, one large library circulating 640 titles, it is of great interest to note that figures for circulated titles in some of the small and medium-sized libraries approach and even exceed those for the large libraries. These facts prob-

ably may be interpreted to indicate that (1) no matter how large the organization, current literature is regarded as of first value, and (2) the availability of current material in the research department is the more important when the library lacks much of the basic published material in its field.

It is a little surprising to find that when there is a question of placing a limit on the length of time an individual may hold a journal before passing it along to the next person on the routing list, libraries are equally divided as to custom. Fifty per cent of libraries request that journals be passed along within a certain period of time after they are received. This period varies from 24 hours, the period most often specified, to 2 weeks. As a general rule, unlimited time privileges are extended by the smaller libraries, where circulation lists are comparatively short. One librarian puts pressure on the readers of the news sheets and industry news publications, and succeeds in having them read by two or three persons in one day. By this method, these news publications reach everyone on the list while they are still of news interest.

Nine libraries publish abstract bulletins periodically as supplements to their circulation. This service is given by libraries of every size. A few libraries post on the bulletin board photostats or typewritten copies of the tables of contents of the more important journals as they are received.

In evaluating their own circulation procedures, most librarians (64 per cent) declare that their circulation systems are "probably the best that could be devised for their libraries." Six librarians (25 per cent) feel that their circulation systems are very good ones. Included among these six is the librarian who has abandoned routine circulation. Only one library in this group offers circulation privileges unrestricted as to personnel eligible to receive journals and as to title or type of journal. Two librari-

ans admit that their circulation procedures are "quite inadequate"; in both of these libraries circulation has been on an "indiscriminate" basis.

Personal comments contributed by many librarians made up the most interesting phase of this survey. On reading these comments, one gains the impression that the question of current journal circulation is unsatisfactorily met in the great majority of special libraries. Even in small organizations where as few as 25 or 35 titles are circulated, the librarians realize that the circulation procedure could be much improved.

Failure of persons receiving journals to pass the journals along within the specified time, or within a reasonable period of time if no limit is set, is mentioned most frequently as the cause of delay and inefficiency in circulation. It appears that no library has been able to set up a system in which journals may be circulated freely, while at the same time, each receiver of journals is motivated to read and send them on promptly. The next most frequently mentioned cause of dissatisfaction is the tendency on the parts of many individuals to loan journals in circulation to persons not on the circulation list. This is actually temporary loss of a journal, and may even result in costly delay if the journal is needed, or in permanent loss. As a solution to this problem, two libraries charge each journal individually, and the journal is returned to the library after each individual has finished with it. Such a scheme is of much value in the prompt location of certain issues, according to the librarians who administer this system. Loss is kept to a minimum also, when the journals are charged individually.

It is obvious that in many special libraries, or at least in many pharmaceutical libraries, circulation of current journals is frequently uncertain, and contributory to delay in finding research materials at a time when they are need-

ed. Yet out of 24 libraries, only one has discontinued the procedure of routine circulation to individuals. Perhaps the essential basis for adherence to the older system is expressed by one special librarian who, in speaking of the research men and executives in her organization, said: "I feel that we must get the material to them rather than have it lie unused, but available, on the library shelves."

SUMMARY: In a survey of 24 pharmaceutical libraries, it was found that all but one of them circulate current journals regularly to personnel in various departments throughout their organizations. In 50 per cent of the libraries there is some discrimination as to personnel eligible to receive journals, and in 66 per cent, only certain titles or types of journals are circulated. If any restriction is set up, it is usually made on scientific journals. More than half of the libraries receive duplicate copies of those journals most in demand; these are usually circulated while one copy is kept in the library.

Most libraries assign the duties connected with circulation to one member of the staff. In the average library these

duties occupy 25 per cent of the working day of one person, but in some libraries circulation is a full-time job. Only 6 libraries furnish special messengers to deliver journals; the remaining libraries depend on plant mail for the distribution of journals. If a limit is set on the length of time an individual may keep a journal, this limit is most frequently 24 hours; however, only 50 per cent of libraries set up any restriction on time.

Approximately one-third of pharmaceutical libraries publish abstract bulletins to supplement circulation, and a few post photostats or typewritten copies of tables of contents of new journals on the bulletin boards, in order to keep their personnel informed of current literature.

The great majority of librarians (64 per cent) feel that their journal circulation systems are probably the best that could be devised for their particular libraries, while 25 per cent rate their procedures as very good. Comments volunteered by many librarians indicate that the development of a more efficient system than that in current use in most libraries is very desirable.

APPLYING MICROFILM IN A WAR AGENCY

By FRANK W. BOBB

Chief, Department of Photo-Reproduction, The Historical Society of
of Pennsylvania, Philadelphia, Pa. .

JUST prior to World War II, microphotography had departed from the sanctuaries of scholars, the libraries, museums and colleges to gain new and far greater recognition in government, commercial and industrial enterprise. As war clouds gathered, the government was busy copying upon microfilm many of its records: social security cards, documents, archives and other rare source material. Business had gone "whole hog" for transcribing its voluminous records upon microfilm. Banks found in this rapid method of copying

and preserving records a long sought-for means of security. Reels of 16 and 35 mm microfilm became a very important part of our everyday way of life, although few of us realized that we had been filmed for posterity. When World War II finally sucked us into the hellish whirlpool of conflict, microphotography was quickly put on a war footing; equipment and techniques then in use were adapted to meet the war emergency. Rotary cameras using 16 mm film and used in micro-copying bank checks, letters, etc., were turned

toward "V" mailing. Automatic enlargers for printing the miles of 16 mm film were improvised. Microfilm was rapidly becoming a vital instrument in our war effort; it was the greatest factor in eliminating serious GI morale problems, by getting the mails through to the fighting men.

The use of 35 mm film and the larger microfilm cameras were kept equally busy recording voluminous war data. However, the grave weakness of our microfilm system, if it could be called a system, became more and more apparent as greater demands were made upon it. Everyone had been so anxious to put originals on microfilm, thereby encouraging camera manufacturers to concentrate on making bigger and better cameras, that very few thought of the day when someone would have to use what had been filmed. That day of reckoning was soon at hand, and the problem of devising methods by which what was already filmed and what was being filmed could be quickly consulted was given top priority. The system devised by the author (*SPECIAL LIBRARIES*, vol. 33, no. 9, November 1942, pp. 325-28) was put into immediate use but only as a stop gap measure until a better system could be devised. It soon became apparent that no one system could be devised for all microfilm collections, each presented its own problem. Therefore, after study, three methods of filmdexing were put into use, each serving a specific need in the cataloging and use of microfilm collections.

METHODS OF FILMDEXING

For those who required extensive cross reference of single microfilm copies, the original material was microfilmed upon 100 foot rolls, thereby retaining ultimate speed in copying. The master negative was processed and then duplicated upon positive film. The small positive transparencies were punched individually from the film roll and inserted into a one inch square aperture of a specially designed International

Business Machine key punch card. This was done very rapidly by operators using a card punching machine. The cards containing the microfilm windows were then extensively cataloged by operators using a keypunch code (the code used depended upon the type of collection being cataloged and the information obtained). The cards with their numerous informative little punches and films were filed in cabinets ready to go into action upon command.

Whenever information was needed the cards were fed with lightning speed through an IBM automatic selector and in a few seconds those cards containing the sought for information were neatly stacked in a separate compartment of the selector for use. The selected cards were then stacked into a viewer and inspected, being advanced one at a time before a translucent screen at the command of the operator. There are many unique features to this system, and its application is already being used very successfully commercially.

The second method fills the demand where film collections are retained in rolls. As in method one, the original material was microfilmed upon 100 foot rolls of 35 mm film, and then duplicated upon positive film. The positive film was then stored upon 100 foot reels and kept in dust-free cabinets until needed. However, each roll of film had two indexes, one self-contained at the end of the roll, the other a full size, printed, written or photostated bound copy. This afforded the customer a rapid method of searching information by using a clear, alphabetically-arranged index in book form. It also permitted the filmed material to be viewed while the index was being consulted, and eliminated the cumbersome winding and rewinding of long lengths of film whenever the index was to be checked. The special feature of this method was the ease by which desired images could be located.

The third method necessitated the development of another film width, 70

millimeter. Many strategic illustrations, maps and charts were being copied upon 35 mm microfilm. Although the results obtained from the 35 mm negatives were good, they were not the best obtainable. The Army and Navy used 8" x 10" cut film to copy their originals, and were justifying this slower and more expensive method with the results obtained. Our photocopying program was outlined and its proportions were staggering. Microphotography was the answer, but objections voiced against its use were serious and genuine. Extreme enlargements from sections of the 35 mm negatives did not compare with those from larger films. Negatives on rolls were "frozen" in position, and the limitations of splicing to remove, insert or replace them was a problem. The inability to loan desired negatives without releasing the roll, clinched the argument against microfilm. However, the thought to depart from the rapidity of copying afforded by microphotography was a nightmare. And it was probably that nightmare which brought forth the 70 mm microfilm.

Film companies were able to supply 70 mm double perforated microfilm in lengths of 100 feet. The film, being panchromatic and of high resolving power, placed at our disposal the finest film obtainable. The Folmer Graflex "Photorecord" camera was again in production due to war necessity and it was obtainable. It was a good portable field microfilm camera, and fitted into the plan excellently. A special 70 mm film magazine was designed to fit exactly in the magazine support of the "Photorecord". This magazine permitted the use of 100 foot rolls of double perforated film giving 350 $2\frac{1}{4}$ " x $3\frac{1}{4}$ " exposures per roll. Of all importance, was the fact that to use the 70 mm magazine, nothing had to be done to the "Photorecord" camera except fit the 70 mm magazine into the 35 mm magazine support. The 70 mm microfilm technique proved to be a rapid, efficient and most satisfactory so-

lution to our photocopying problem.

Microphotography's unsurpassed advantages were utilized to the fullest, and after serving its purpose, the rolls of film were cut into separate negatives ($2\frac{1}{4}$ " x $3\frac{1}{4}$ "), placed in glassine envelopes and filed. We were then in the position to loan negatives as requested. Cross indexing of the subject matter contained in each 70 mm negative was done by contact printing each negative separately upon 4" x 5" cardstock or double weight photographic paper. A border was then punched out around the card, sufficient space being left between the punches and the picture for the cataloger's entries. Each punched hole represented important data, and if that data appeared in the picture, the punched hole was cleared to the end of the card. This permitted the card containing the sought-for data to fall free when a long rod was run through that particular punched hole in the drawer of cards. The punched hole idea permits a wide variety of cross indexing, and the important feature of this system is that the picture serves as its own index, thereby eliminating any unnecessary card files.

The making of enlargements from rolls of 16, 35 and 70 mm microfilm was a slow, expensive and heavy personnel problem. It, too, was a forgotten necessity in complete microfilm services, along with cataloging and reading machines. To solve that problem, a special microfilm enlarger was designed that permitted one operator to enlarge from rolls of 16, 35 or 70 mm microfilm upon rolls of sensitized paper approximately 750—8" x 10" enlargements per hour. The exposed rolls of paper were then developed, fixed, washed and dried automatically on a specially constructed continuous "Photostat" processor. A sincere effort in making microfilm more useful, has certainly justified that effort, and encourages continued research into a field where reward merely requires exploration.

IN JUNE 1948

THE CHAPTER IN YOUR LIFE

IS WASHINGTON, D. C.

THE Honorable John Russell Young, President, Board of Commissioners of the District of Columbia, promises a hearty welcome to Association members and guests in June when the Washington, D. C. Chapter will demonstrate the plans made by the largest S.L.A. Convention Committee ever appointed, over 600 Chapter members!

The Washington, D. C. Chapter regrets its inability to present the famous cherry blossoms in their reflected splendor surrounding the Tidal Basin in Potomac Park, but magnolias, paulownias, rose hays, mammoth pansies, venerable wisterias, honey locusts and superb tropical pond lilies will dress the parks for which the city is famous. Thousands of trees will be in full leaf to shade wide pavements and broad avenues where earth's patriots have trod, and where special librarians may pursue their quest for knowledge, seeking facts from the treasury of 150 years of recorded democracy housed in monumental structures commemorating the vision of our Founding Fathers.

For several years past, travel has been so restricted and accommodations so difficult to arrange that the Washington, D. C. Chapter could not extend to Special Libraries Association an invitation to meet in the National Capital. Now that the travel situation has eased and through the cooperation of the Washington Board of Trade, the Greater National Capital Committee and the Washington Hotel Managers' Association, select accommodations have been reserved in seven leading hotels, thus

making it possible to entertain a thousand or more special librarians with the thrilling experience of a Convention week in the District of Columbia.

A thirst for inspiration from history may be quenched on June 6 when a guided tour of historic shrines, monuments and public buildings in and near Washington will be conducted at noon from the Statler Hotel headquarters: "The Past is Prologue."

The Congress of the United States, Executive Departments, Independent Agencies and the Judiciary will be diligently at work during Convention week so that those S.L.A. members attending the Convention will have ample opportunity to see behind the Federal scenes and formal signatures and "unpuzzle" for themselves some of the multiplicity of extraordinary functions performed in satisfying demands made by 140,000,000 citizens.

The Federal Library Institute, directed by Dr. Luther H. Evans, Librarian of Congress, will be open for all those attending the Convention on Monday and Tuesday, June 7 and 8. The program for Monday will be divided between the Library of Congress and the Government Printing Office, "Uncle Sam's Workshops." Mr. Jonathan Daniels, public servant, journalist and author of *Frontier on the Potomac*, will address the Institute at dinner in the Federal Room at Hotel Statler on Monday, June 7. On Tuesday, the Institute will feature "The Federal Document" and "Down the Broad Avenues" with programs arranged at Army Medical Library, U.S. Department of Agriculture,

the Smithsonian Institution, U.S. Department of Commerce and the Federal Security Agency. On these days the following special libraries will receive visitors between 2:30 and 5:00 p.m.:

Civil Aeronautics Administration
Federal Trade Commission
Freer Gallery of Art
Industrial College of the Armed Forces
National Institute of Health
National Museum
National Security Resources Board
National War College
Naval Medical Center
Office of Technical Services
U.S. Bureau of the Budget
U.S. Civil Service Commission
U.S. Coast and Geodetic Survey
U.S. Department of Commerce
U.S. Department of Justice
U.S. Department of Labor
U.S. Department of the Treasury
U.S. Patent Office
U.S. Tariff Commission

S.L.A. executives will be featured Tuesday evening when a party will be held in the Presidential Room at Headquarters when Mr. Phillips Temple, Master of Ceremonies, will conduct the quiz to identify the S.L.A. Executive Board, Group Chairmen and Chapter Presidents, assisted by Miss Ruth Leonard and Miss Helen Rogers. Representatives of the Press will be our guests.

The Convention will be formally opened Wednesday morning, June 9, at the Hotel Statler to hear reports on the state of the Association and to become acquainted with problems to be discussed at the annual business meeting June 11. An outstanding and inspiring speaker is promised to address the members at Wednesday luncheon. Two membership participation meetings are scheduled for that evening at 8:30 and "Information at Source" is the subject to be discussed at the special subject Group programs, Thursday, June 10. These meetings are designed to effect the greatest possible opportunity for Groups and visiting subject specialists

to question officials responsible for accumulating the mass of statistical data acquired through Federal questionnaires and reports, and to investigate research originating in Washington whether privately conducted or publicly supported. Group Day will be climaxed by a banquet in the Presidential Room.

Friday will be devoted to Association business, Groups meeting in the morning before the annual business session which is scheduled for luncheon when incoming Association executives will be recognized. Non-Federal librarians in Washington have extended open house invitations to the Convention and notable collections in the institutions of higher learning and private libraries will be available for inspection. The Hospitality Committee has also listed many libraries for observation on Wednesday, Thursday, Friday afternoons and Saturday.

On Friday evening the Washington, D. C. Chapter will sponsor a moonlight cruise forty miles down the Potomac to colonial Marshall Hall, steaming past Mt. Vernon, Alexandria and the Washington National Airport on the western shore; the National War College and U.S. Naval Air Station at the confluence of the Anacostia and Potomac Rivers; and the Naval Research Laboratory on the eastern shore.

Hotel reservations are centralized in the Registration Committee and will be confirmed immediately by the Chairman, Miss Eva Lieberman. Please address Special Libraries Association, 39th Annual Convention Committee, P.O. Box 723, Washington 4, D. C. when writing for reservations. The following schedule of accommodations provides ample selection and assignments will honor requests for specified hotels as far as is possible. Members who wish to share a suite should include all names of occupants with the request.

<i>Hotels</i>	<i>Single Rooms</i>	<i>Double Rooms</i>	<i>Other Accommodations</i>
AMBASSADOR, 14th and K Streets...	\$5.00-\$5.50	\$8.00-\$9.00	2 connecting double rooms and bath, for four \$16.00

CARLTON, 16th and K Streets.....	\$6.00-\$8.00	\$9.00-\$11.00	2 connecting singles and bath \$6.00 per person
HAMILTON, 14th and K Streets.....	\$4.00-\$5.50	\$7.00-\$9.00	3-bed room, \$9.00
LAFAYETTE, 16th and I Streets.....	\$4.00-\$5.00	\$7.00-\$9.00	\$10.00-\$14.00
LEE-SHERATON, 15th and L Streets.	\$4.50-\$5.00	\$7.00-\$8.00	
NEW COLONIAL, 15th and M Streets.	\$4.00-\$5.00	\$7.00-\$9.00	
STATLER, 16th, K and L Streets.....	\$5.50 up	\$9.00 up	\$17.50 up
(Headquarters)			

These hotels are all within a 3-minute walk to Headquarters at Hotel Statler. Food service in all seven is excellent and moderate in cost. In the vicinity are a variety of restaurants boasting Chinese, French, Italian, Swedish, Greek and American cuisine.

Bus transportation will be provided for all meetings and library visits more than six blocks distant from Headquarters.

"The Past is Prologue", Part I of FUTURE INDICATIVE, covering a full sightseeing tour, supper and an evening of art and music will be approximately five dollars per person, all expense.

Washington welcomes this opportunity to present Future Indicative and discuss with special librarians the problems of putting knowledge to work. It is earnestly hoped that all members of

Special Librarians Association will mark a June calendar to make Washington, D. C. a chapter in their life.

JANE BREWER

Convention Chairman, 1948.

STANDARDS AND THE SPECIAL LIBRARIAN

By HAZEL MACDONALD

Chief, Library Division, Naval Ordnance Laboratory, Washington, D. C.

ONE of the major tasks confronting the technical librarian today is that of keeping up to date with the multiplicity of documents concerning standards and specifications and their related problems. Not only must the librarian scrutinize the literature dealing with the specialty of the organization where he is employed, but also with the incessant flow of articles relating to standards of other specialties. Even though at first glance the articles may not seem to be relevant, standards and standards development are closely related through a large variety of parent industries, suppliers, purchasers and consumers, together with government orders and regulations, legal decisions and technological advances.

Webster defines a standard as "an established rule or model, usually fixed by authority." Many standards are, of course, set by custom or general consent. There are standards for basic units of length, weight, energy; standards for

the nutritive value of foods, the use of drugs, the packing of canned goods; standards of identity, quality, quantity. As an illustration of inter-relationship on the surface a standard of packing devised by an association of can manufacturers and a standard of cleanliness in the preparation of stewed tomatoes set by Federal law may seem far apart as to subject, yet the manufacturer of canned tomatoes has great interest in both standards. Again, standards for melting points of plastics and those for metals may be widely separated in laboratories of the manufacturers of each, yet the maker of pots and pans must have full information of both.

A librarian working in a research library will also discover that standards of widely divergent fields will be of much interest to his own employer and to the research clientele as, for example, standards which have an effect on national economy and national defense, standards dealing with the legal aspects

of a safety code, even the effects of changes in consumer standards on the cost of living index.

Indeed, librarians are finding that they are living in a "standards" world. Nearly 500 trade associations, technical and professional societies, and government agencies in this country alone are directly concerned with the development of standards and specifications.

There are building standards, standard codes, composition standards, construction standards, standard definitions, standards of description, distributor standards, durability standards, efficiency standards, company standards, government standards, national standards, international standards, standards of identity, marketing standards, measurement standards, standard nomenclature, performance standards, quality standards, standard regulations, safety standards, standard constants, and so on into the hundreds of types of standards.

How may a librarian, however industrious and conscientious, he may be, keep abreast of the ever-increasing tide of standards' literature? In spite of hours spent perusing indexes and periodicals, not a day goes by but what someone requests a document not in the library—one which would have been there had the librarian known of its existence—and this means a hurried ordering or rushing about to borrow a copy.

Good news is that at last someone is going to do something to help keep librarians current on standards. A group of seasoned specialists with years of experience in standardization and simplification, are planning the publication of a quarterly journal entitled *Standards World*. This journal is to be devoted to information concerning the development and practice of standards, national and international, and will carry articles written by experts in many different phases of standards work. There will also be sections dealing with standards activities of trade, technical and profes-

sional associations; one concerned with the work of Federal, state and municipal government standards groups; another dealing with international standards practices; a listing of notable standards projects in process and recently completed; a section containing abstracts of doctoral dissertations and advanced studies on subjects related to standards; a section for impartial evaluation of existing standards, and one of book reviews.

The Advisory Editorial Board of *Standards World* includes: Dr. E. U. Condon, Director of the National Bureau of Standards; Ralph L. DeGross, General Partner, Robert Garrett Sons, Baltimore; Dr. Alice L. Edwards, Professor of Home Economics at Mary Washington College of the University of Virginia; Dr. Ephraim Freedman, Director of Macy's Bureau of Standards; Dr. Simon G. Hanson, Director of the Institute of Inter-American Studies, Washington; O. C. Roehl, of Keystone Custodian Funds, Boston; and Miss Rose L. Vormelker, Librarian of the Business Information Bureau of Cleveland Public Library and President-elect of Special Libraries Association.

Editor of this new journal is Mr. S. P. Kaidanovsky, for many years a specialist on standards in industry and government and author of many publications on standards and related problems. Mr. Kaidanovsky was formerly Consultant for the Navy Department and is now Technical Consultant to the Federal Specifications Board.

The first issue of *Standards World* is scheduled to be off the press this autumn. The preliminary planning and exhaustive studies undertaken by the above-mentioned group of distinguished specialists makes the journal a certainty for filling a long-time gap in the dissemination of technical knowledge in the standards fields. *Standards World* should prove a boon to special librarians in "putting knowledge to work".

EVENTS and PUBLICATIONS¹

The National Archives of India (Imperial Record Department) announced in October the publication of an illustrated quarterly journal entitled *Indian Archives* for the dissemination of information on archival and library matters. The quarterly will on the one hand serve as an organ for the furtherance of improvements in the field of archives-keeping and preservation of records by publishing the results of research by specialists in the subject, and on the other hand, help to keep all those interested in the science informed of the latest contributions made to it in the progressive countries outside India. One entire section of each issue of the journal will be devoted to publishing extracts or translations of significant articles on the subject in foreign languages not easily accessible to Indian readers. The annual subscription rate is Rs.8/ (post free in India) and 12 shillings abroad, and the price of individual numbers is Rs.2/ and 3 shillings. Communications dealing with subscriptions should be addressed to: Director of Archives, Government of India, National Archives of India, (Imperial Record Department) Queensway, New Delhi.

* * *

CLASSIFICATION: AN INTRODUCTORY MANUAL by Margaret M. Herdman, Professor of Library Science, Louisiana State University, is a publication of the American Library Association. From the chapter on "Definition and Kinds of Classification" to the final one on the "Construction of a Classification Scheme", the Manual gives complete and comprehensive coverage of the subject. (Chicago, Ill., American Library Association, 41 East Huron Street, 1947. 50p.) This publication may be borrowed from S.L.A. Headquarters.

* * *

CLEVELAND MARKET DATA HANDBOOK 1947 EDITION by Howard Whipple Green is a compact, easy-to-use reference book of pertinent facts about Cleveland. It presents data on population, families, cost of living, employment and unemployment, wage earners and wages in the manufacturing industry, value of products, pig iron production, telephones, automobile sales and registrations, etc. Also national data on income produced in the United States, public debt, employment, bank debits and interest rates, etc. A series of tables and charts shows this material over a long period of years. (Cleveland, Ohio, Real Property In-

ventory of Metropolitan Cleveland, 1001 Huron Road, 1947. 77p. 61 charts. \$2.50)

* * *

Although the new edition of **SPORTSMANLIKE DRIVING** was written primarily for the beginner driver it will also be of value to the hundreds of thousands who realize that they need to improve their driving and walking practices. The text, which is well illustrated, is divided into four parts: The Driver and the Pedestrian; Sound Driving Practices; How to Drive; and The Motor Age Advances. (Washington, D. C., American Automobile Association, 1947. 425p.)

* * *

Available on loan from SLA Headquarters is the **PROCEEDINGS** of the June 1947 Second Conference of the Canadian Library Association held in Vancouver, B. C. Copies may be ordered from the Executive Secretary of the Canadian Library Association, 46 Central Chambers, 46 Elgin Street, Ottawa, Canada.

* * *

The 1947 edition of **ACCIDENT FACTS**, annual yearbook of the National Safety Council, serves as a statistical survey of the nation's accident picture for those seeking a source book on the advance of safety. The yearbook compiles death and injury figures for industry, homes, schools, motor vehicles and farms. **ACCIDENT FACTS** is available from the National Safety Council, 20 North Wacker Drive, Chicago 6, Ill. Copies cost 50 cents each in quantities less than 100, and 40 cents each in greater quantities.

* * *

Business men, librarians, writers and research workers will welcome the valuable guide to the vast fund of material available in 562 specialized libraries in the New York City area which has just been published by the New York Chapter of Special Libraries Association. Now in its fourth edition, **SPECIAL LIBRARIES DIRECTORY OF GREATER NEW YORK** describes the resources of important business, technical and professional libraries. The libraries are classified under 25 subjects of major interest, ranging from advertising and public relations through technology and transportation. Organization and personnel indexes are included. Miss Fannie Simon, Librarian, McCall Corporation, New York, has edited this publication.

The price of the Directory is \$2 to S.L.A. members and \$2.50 to non-members. Copies are available from Miss Vera H. Knox, Tax Foundation, 30 Rockefeller Plaza, New York 20, N. Y.

¹ Where it is possible the Editor has given prices for publications noted in this column. The omission of a price does not necessarily indicate that the publication is free.

Published by the Labor Relations Information Bureau, Washington, D. C., **OPERATING UNDER THE TAFT-HARTLEY ACT**, is by Max Malin and S. Herbert Unterberger. This brief book provides a practical explanation of how the new labor law works. The authors take no sides in the book, but retain the objectivity necessary to present a clear picture of how the new law affects the daily problems confronting the employer, the foreman, the union steward and the worker. (Labor Relations Information Bureau, 918 F Street, N.W., Washington 4, D. C. 48p. \$1.50)

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CUTTING ADVERTISING AND PRINTING COSTS was written by the staff of *Printers' Ink* with an introduction by C. B. Larrabee, President and Publisher of *Printers' Ink Magazine*. "Getting the Most Out of the Advertising Dollar" could well be an alternative title for this book. In it are 530 tested economy devices for cutting advertising and printing costs without impairing the value of these sales-building aids. (New York, N. Y., Funk & Wagnalls Company, 1948. \$5.00)

* * *

The world-wide growing interest in the social services and especially the voluntary social services makes particularly apropos the new publication of the National Council of Social Service of London, *Social Service: A Quarterly Survey*. The September-November 1947 issue contains a number of pertinent articles on many phases of the social service field. This issue may be borrowed from S.L.A. Headquarters, or copies may be ordered from the National Council of Social Service, 26 Bedford Square, London, W.C. 1. Two shillings and sixpence for single copies; ten shillings per year.

* * *

Progress Interpreted announces 20 translations of captured German research documents from the Office of Technical Services, 9 in Coating Compositions, 6 in Plastics, 5 in Petroleum. They are offered singly (\$1.00 to \$4.00) or in whole series at lower rates. A list, identifying each document by subject, PB number and abstract reference in the *Bibliography of Scientific and Industrial Reports*, may be had from Progress Interpreted, 5410 14th Place, Hyattsville, Maryland.

* * *

A CONCISE HISTORY OF THE LAW OF NATIONS, by Arthur Nussbaum, Research Professor of Public Law at Columbia University, fills a real need since up to the present time the history of international law has been little explored. Dr. Nussbaum believes that only by tracing the law of nations as it developed in close connection with political history may we understand its possible future direction. (New York, N. Y., MacMillan Company, 1947. 361p. \$4.50)

* * *

THE DIRECTORY OF PERSONNEL IN OHIO LIBRARIES 1947, compiled by the Junior Members Section of the Ohio Library Association, may be ordered from Miss Hilda K. Miller, Cleveland Public Library, Cleveland, Ohio. The Directory is an attempt to list persons engaged in full-time library work in the libraries of the state—public, county, state, school, college, university and special.

Please Mention Special Libraries When Answering Advertisements

The Electrochemical Society announces the publication in January 1948 of a new monthly periodical, *Journal of The Electrochemical Society*, featuring technical and scientific reports of research in electrochemistry and related subjects. The *Journal* will include technical papers presented at the Society's semiannual meetings, feature articles of interest to electrochemists, current news and affairs pertaining to the Society and its membership. Subscriptions to nonmembers are \$10 annually. The Society's *Transactions*, published semiannually in bound form, will be maintained as before at a subscription price of \$7.00 per volume. Further information and requests for subscriptions should be addressed to the Editor at the Society's headquarters, 235 West 102nd Street, New York 25, N. Y.

* * *

THE FORTY-SECOND ANNUAL REPORT OF THE CARNEGIE FOUNDATION FOR THE ADVANCEMENT OF TEACHING is available on loan from S.L.A. Headquarters.

* * *

HOW TAX LAWS MAKE GIVING TO CHARITY EASY, by J. K. Lasser, is intended to give those seeking contributions for charitable purposes the particular facts about our Federal tax structure designed to make giving to charity easy. It is also written for people who want to learn how to make their contributions wisely as well as have them apply to reduce their income tax. The author is a senior partner in the New York firm of J. K. Lasser and Company, Certified Public Accountants. (New York, N. Y., Funk & Wagnalls Co., 1948. \$2.75)

Announcements

Florence Bradley Retires

Miss Florence Bradley was the honored guest at a dinner given at the Stockholm restaurant in New York on January 17 by the National S.L.A. Insurance Group and the Insurance Group of the New York Chapter. Miss Bradley retired January 1, 1948, after a long term of service as librarian of the Metropolitan Life Insurance Company. The 30 guests at the dinner included many librarians outside these Groups and several from out of town. In the course of her career Miss Bradley has made memorable contributions to the library profession as well as to insurance libraries.

New S.L.A. Group Formed

In response to the needs of librarians engaged in publishing fields other than newspaper, a new national Group of S.L.A., to be

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No. 8. 1940-1941. xv, 142p. cloth. \$2.50

No. 9. 1941-1942. xv, 128p. cloth. \$2.50

No. 10. 1942-1943. 110p. cloth. \$2.50

No. 11. 1943-1944. 88p. cloth. \$2.50

No. 12. 1944-1945. 68p. cloth. \$1.50

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No. 14. 1946-1947. 100p. cloth. \$2.50

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known as the Publishing Group, has been formed. The first national meeting will be held in June during the annual S.L.A. Convention in Washington, D. C. The New York Chapter has organized a local Group and has held two meetings to date.

Persons interested in this Group should communicate with Miss Fannie Simon, Librarian, McCall Corporation, 230 Park Avenue, New York, N. Y., who is temporary national chairman.

S.L.A. Publications Wanted

S.L.A. Headquarters is in urgent need of the January and February 1947 issues of *SPECIAL LIBRARIES* and *T. B. R. I.* Donations will be gratefully received and postage refunded.

The H. W. Wilson Company Celebrates Fiftieth Anniversary

Half a century of progress in bibliographic publishing will be rounded out in January as Halsey W. Wilson observes his fiftieth anniversary of publishing the *Cumulative Book Index* in the Company which bears his name. The entire year 1948 has been designated by The H. W. Wilson Co. for the observance.

German Books Now Available

Paul Mueller of Schoenhof's Foreign Books, Inc., Cambridge, Mass., reports that it is possible from now on to secure new German scientific publications, books as well as serials, from Germany and Austria. During a two months' trip visiting German and Austrian publishers Mr. Mueller concluded for his firm export contracts with the Military Governments.

The German publishers are willing to accept renewals of serial publications for 1947, 1948, which Serials will be shipped directly to the libraries ordering them.

For further information a catalogue under the title: *Complete 1947-1948 List of German Scientific Serial Publications compiled from information gathered during a business trip to Germany* has been published and can be obtained free of charge through Schoenhof's Foreign Books, Inc., Cambridge, Mass.

Western Reserve University Offers Fellowship

Western Reserve University School of Library Science will offer for the academic year 1948-49 eight half-tuition fellowships. Graduates of approved colleges who have a better than usual academic record are encouraged to apply. These working programs should appeal to persons who desire to work closely with individual instructors in specific subject fields. For example, several students will be assigned to the fields of cataloging and classification, to reference work and to school

and children's library service. A view of teaching methods and collecting materials for instruction will be made available to the approved candidate. Service of the individual student will not exceed ten hours of work a week for one semester in return for a half-tuition credit throughout the year. Inquiries should be addressed to Miss Thirza E. Grant, Dean, School of Library Science, Western Reserve University, Cleveland 6, Ohio.

University of Minnesota Offers Scholarship

The University of Minnesota, Division of Library Instruction, announces the John C. Hutchinson Scholarship of \$250 for the academic year 1948-1949 to be awarded for study in Library Science. Qualifications for the award are intelligence, enthusiasm, social interest and professional promise. Application blanks may be secured from the Bureau of Loans and Scholarships, University of Minnesota, Minneapolis 14, Minnesota. Applications received after June 1, 1948, cannot be considered for the year 1948-49.

Obituaries

Thomas Asher Meade

Thomas Asher Meade, Librarian, General Motors Institute, Flint, Michigan, died in November following an illness of several months. In addition to his position with General Motors, Mr. Meade had been reference assistant at the Queens Borough Public Library, Librarian of the Joseph Schaffner Library of Commerce, Northwestern University, and Director of Market Research for Montgomery, Ward and Company, Chicago. Mr. Meade has been an Active member of S.L.A. for the past several years.

Mrs. Ethel Allen Washburn

Mrs. Ethel Allen Washburn, former librarian of the St. Louis University Medical Library, died at her home September 14, 1947. Mrs. Washburn was a member of the Greater St. Louis Chapter of Special Libraries Association.

Dr. John Van Male

Dr. John Van Male, Assistant Librarian of the University of Denver and President of the newly formed group which only a few days before had been granted a petition to form the Colorado Chapter of Special Libraries Association, passed away January 15 after an illness of two days. Plans for Mrs. Strieby's trip to install the Chapter on January 19 were cancelled.

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